

AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-6 (Cancelled)

7. (New) A display apparatus having a display body module unit and a separately disposed display control unit, the display body module unit including a display panel and a display driving means for driving the display panel, the display apparatus comprising:

a signal management control means comprising a signal detection means for detecting errors in control signals output from the display control unit, and a sequence processing means for changing the shape of a signal on the display body module unit based on a detection signal from the signal detection means;

the signal detection means comprising a signal-stop detection means for detecting stoppage of a control signal; and

the sequence processing means comprising a forced-stop control means for unconditionally control-setting a display panel voltage to be applied to the display panel by the display driving means to substantially zero in response to a detection output of the signal-stop detection means;

the forced-stop control means comprising a first signal delay means for controlling setting the display panel voltage to be applied to the display panel after a first delay time following a non-detection output of the signal-stop detection means; and

a power source control means for controlling the on/off state of a display panel power source means in order to generate a display panel drive voltage based on an output from the signal-stop detection means and a power on/off signal of a logic-side supply voltage.

8. (New) A display apparatus as described in claim 7, wherein the power source control means comprises a second signal delay means for controlling turning the display panel power source means on after a second delay time, which is shorter than the first delay time, following the non-detection output of the signal-stop detection means.

9. (New) A display apparatus as described in claim 7, wherein the forced-stop control means comprises a forced-blanking display signal control terminal for controlling transmission of output from the forced-stop control means.

10. (New) A display apparatus as described in claim 9, wherein there are n signal management control means where n is a positive integer, and
a different type of detected signal is input as a control signal to each of the signal management control means.

11. (New) A display apparatus as described in claim 10, wherein $k = 1$ to $n-1$, and a control output of the k-th signal management control means is applied as the forced-blanking display signal of the (k+1)-th signal management control means, and the on/off display state of the display driving means is controlled based on control output of an n-th signal management control means.

12. (New) A display apparatus as described in claim 11, wherein the first signal delay means is an N-stage D-type flip-flop, where N is a positive integer, to which a frame start signal is input and which is settable/resettable based on output from the signal-stop detection means; and

the second signal delay means is an M-stage D-type flip-flop, where M is a positive integer less than N, to which a frame start signal is input and which is settable/resettable based on output from the signal-stop detection means.

13. (New) A display apparatus as described in claim 7, wherein the display panel is a liquid crystal display panel.

14. (New) A display apparatus as described in any of claim 7, wherein the display panel is a plasma display panel.

15. (New) A display panel drive apparatus disposed on a display body module unit for supplying a display drive voltage to a display panel based on signals from a display control unit, comprising:

a signal management control means comprising a signal detection means for detecting errors in control signals output from the display control unit, and a sequence processing means for changing the shape of a signal on the display body module unit based on a detection signal of the signal detection means;

the signal detection means comprising a signal-stop detection means for detecting stoppage of a control signal; and

the sequence processing means comprising a forced-stop control means for unconditionally control-setting a display panel voltage to be applied to the display panel to substantially zero based on output of a signal-stop-detected signal by the signal-stop detection means;

the forced-stop control means comprising a first signal delay means for controlling setting the display panel voltage to be applied to the display panel after a first delay time following a non-detection output of the signal-stop detection means; and

the signal management control means comprising a power source control means for controlling the on/off state of a display panel power source means in order to generate a display panel drive voltage based on an output from the signal-stop detection means and a power on/off signal of a logic-side supply voltage.

16. (New) A display panel drive apparatus as described in claim 15, wherein the power source control means comprises a second signal delay means for controlling turning the display panel power source means on after a second delay time, which is shorter than the first delay time, following the non-detection output of the signal-stoppage detection means.

17. (New) A display panel drive apparatus as described in claim 16, wherein the forced-stop control means comprises a forced-blanking display signal input terminal for controlling transmission of an output from the forced-stop control means.

18. (New) A display panel drive apparatus as described in claim 17, wherein the first signal delay means is an N-stage D-type flip-flop, where N is a positive integer, to which a frame start signal is input and which is settable/resettable based on an output from the signal-stop detection means; and

the second signal delay means is an M-stage D-type flip-flop, where M is a positive integer less than N, to which the frame start signal is input and which is settable/resettable based on an output from the signal-stop detection means.

19. (New) A display panel drive apparatus as described claim 15, wherein the display panel drive apparatus is a liquid crystal drive device for driving a liquid crystal display panel.

20. (New) A display panel drive apparatus as described in claim 19, wherein the liquid crystal drive device is a semiconductor integrated circuit.

21. (New) A display panel drive apparatus as described in claim 20, wherein the semiconductor integrated circuit is a Y driver.

22. (New) A display panel drive apparatus as described in claim 21, wherein the Y driver is a scanning driver of a passive matrix LCD.

23. (New) A display panel drive apparatus as described in claim 21, wherein the Y driver is a gate driver of an active matrix LCD.

24. (New) A display control apparatus for controlling a display panel containing display elements, comprising:

a logic circuit unit to which a logic power source (Vcc) is supplied;

a power-on detection circuit comprising a time constant circuit having one side connected to the logic power source (Vcc) and another side connected to a ground line GND, and a potential detection circuit (INV2) that receives an output of the time constant circuit after the logic power source is applied and that outputs a reset signal to a detection output line until a specific potential is exceeded;

a signal delay control unit connected to the detection output line, that receives as an input the reset signal supplied to the detection output line, and that outputs a control signal delayed by a specific delay time;

a scan driver circuit that receives the output of the signal delay control unit and a forced-blanking display signal (/DFF), and that outputs a display blanking signal (/DF) and display power control signal (/POFF) instructing a display power source circuit to start producing a power supply output based on the combination of the signal delay control unit output and the forced-blanking display signal (/DFF);
and

a display driving circuit that is connected to the output of the scan driving circuit and that selects a specific supply source from the display power source

circuit according to an ACTIVE/INACTIVE state of the display blanking signal (/DF);

wherein the display panel is controlled to be blank at least until the signal delay control unit output goes ACTIVE after the logic power source is applied.